



# DX8000 Hard Drive Upgrade Installation For Single Drive Systems

**DX8000**

Digital Video Recorder

C1606M (6/04)



Protecting people and property in a million locations worldwide.

# Introduction

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The following instructions serve as a guide for replacing the primary hard disk drive of your DX8000 Series digital video recorder (DVR). Step-by-step directions show you how to install the DX8000-UP250 hard disk upgrade kit.

## PARTS LIST



**NOTE:** This upgrade kit includes a Pelco-certified hard disk drive. Using any other hard disk drive with the DX8000 voids the manufacturer’s warranty for the DX8000.

Qty	Description
1	250 GB hard disk drive
2	Mounting screws
1	DX8000 Reinstallation CD

## TOOLS NEEDED

1	Phillips-head screwdriver #1 (nonmagnetic)
1	Properly grounded ESD wrist strap and mat
4	Small containers for storing screws (optional)

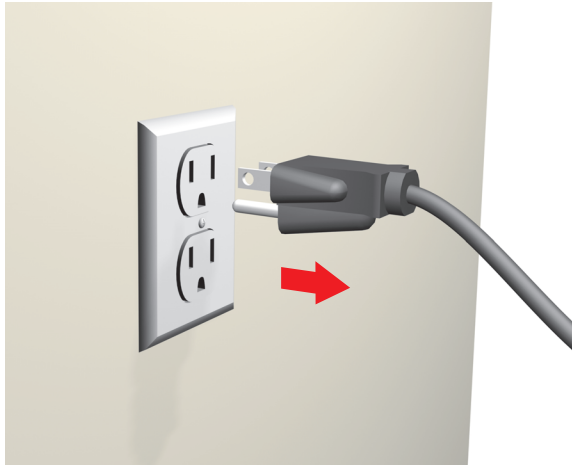
# Getting Ready

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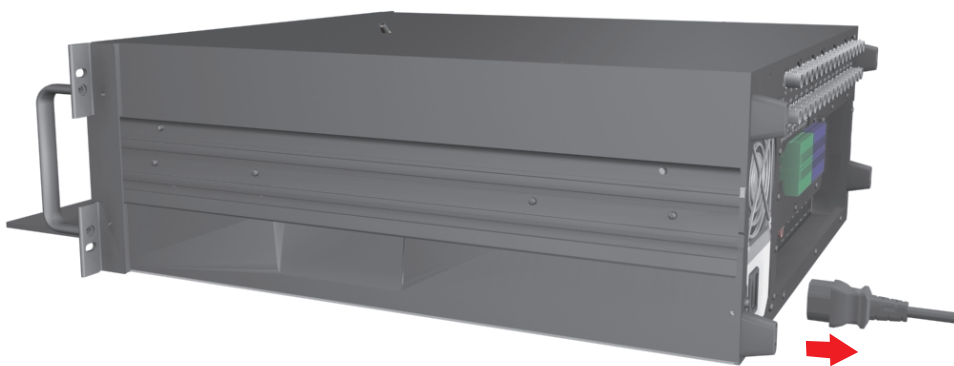
1. Familiarize yourself with the instructions throughout this manual.
2. Check that you have all the necessary parts and tools. Refer to the *Parts List* and *Tools Needed* sections.
3. Shut down the DX8000 Series DVR unit. Refer to DX8000 Installation Manual or Operations and Programming Manual for instructions on shutting down your unit.
4. Unplug the power cord from the wall socket and then from the rear of the DVR.



**WARNING:** For safety reasons, you must remove the power cord because current continues to flow through the DX8000 even when the unit is off. Remove the power cord from the wall socket first and then from the rear of the DVR. It is critical that the unit be unplugged for your safety.



**Figure 1.** Removing Power Cord from Wall

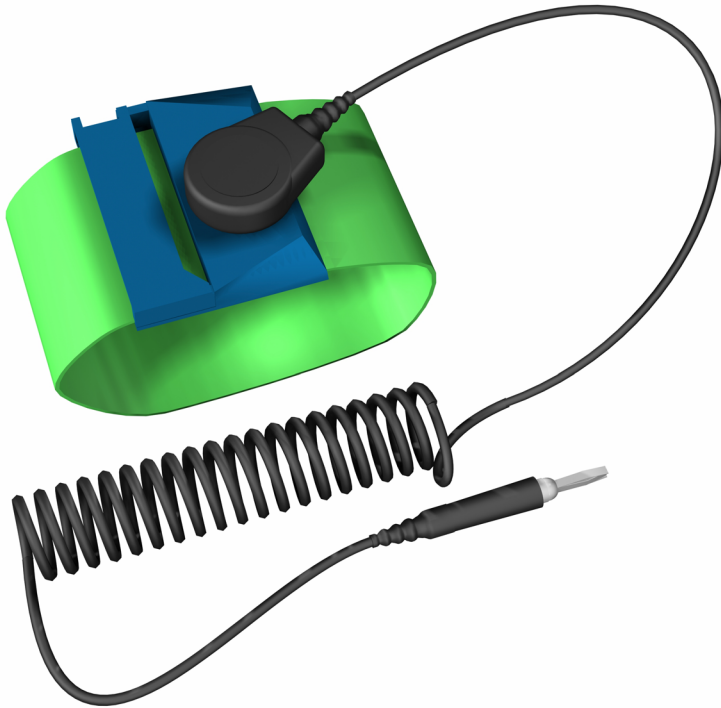


**Figure 2.** Removing Power Cord from Unit

5. Ensure that the DX8000 Series DVR and all of its components are protected against electrostatic discharge (ESD). Before handling any electronic components, you should take steps to ground yourself properly so that any built-up static electric charges are dissipated away from the unit. The most effective method for combating ESD is to use a properly grounded wrist strap.



**NOTE:** If you do not have access to a grounded wrist strap, you can discharge built-up static by periodically touching an unpainted section of the chassis.



**Figure 3.** ESD Protection

# Prepare Unit for Drive Installation

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## OPEN THE UNIT CHASSIS



**WARNING:** The chassis assembly includes parts with sharp edges. To avoid injury, use caution when working in and around the DX8000's chassis and components.

1. If the DX8000 is mounted in a rack, remove it and transport it to an area that will provide full access to the unit chassis:
  - a. Disconnect any cables or connections that might restrict access to or the removal of the unit.
  - b. Unscrew the fasteners that are securing the unit in the rack.
  - c. Carefully lift the unit out of the rack.



**NOTE:** Removing the DX8000 from a rack may require more than one person. Refer to the DX8000 Installation Manual for rack mounting information.

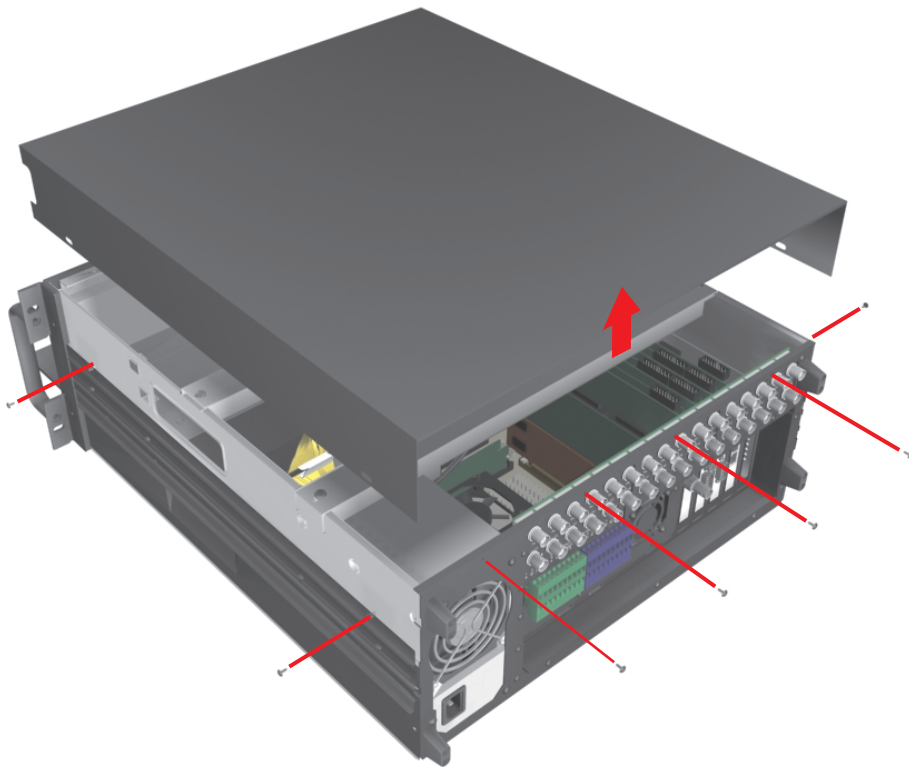
2. Place the DX8000 on a flat surface with ample workspace.

3. Using a Phillips-head screwdriver, remove the chassis cover:



**WARNING:** Make sure unit is turned off and you are wearing a properly grounded ESD wrist strap before attempting to open the DX8000 chassis cover. Refer to the *Getting Ready* section.

- a. Remove the two top-most screws on the left and right side panels of the DX8000. Refer to Figure 4.
- b. Remove the four silver screws fastening the cover to the rear of the unit. These screws are the ones closest to the top of the unit. Refer to Figure 4.
- c. Carefully remove the chassis cover by sliding it back and up. Set aside the cover. Figure 5 illustrates the interior of the DX8000.



**Figure 4.** Removing Chassis Cover

# COMPONENT LAYOUT

Figure 5 shows the location of your DX8000 Series DVR's major components. Certain cables and components have been omitted from the illustration in this manual for the purpose of clarity.

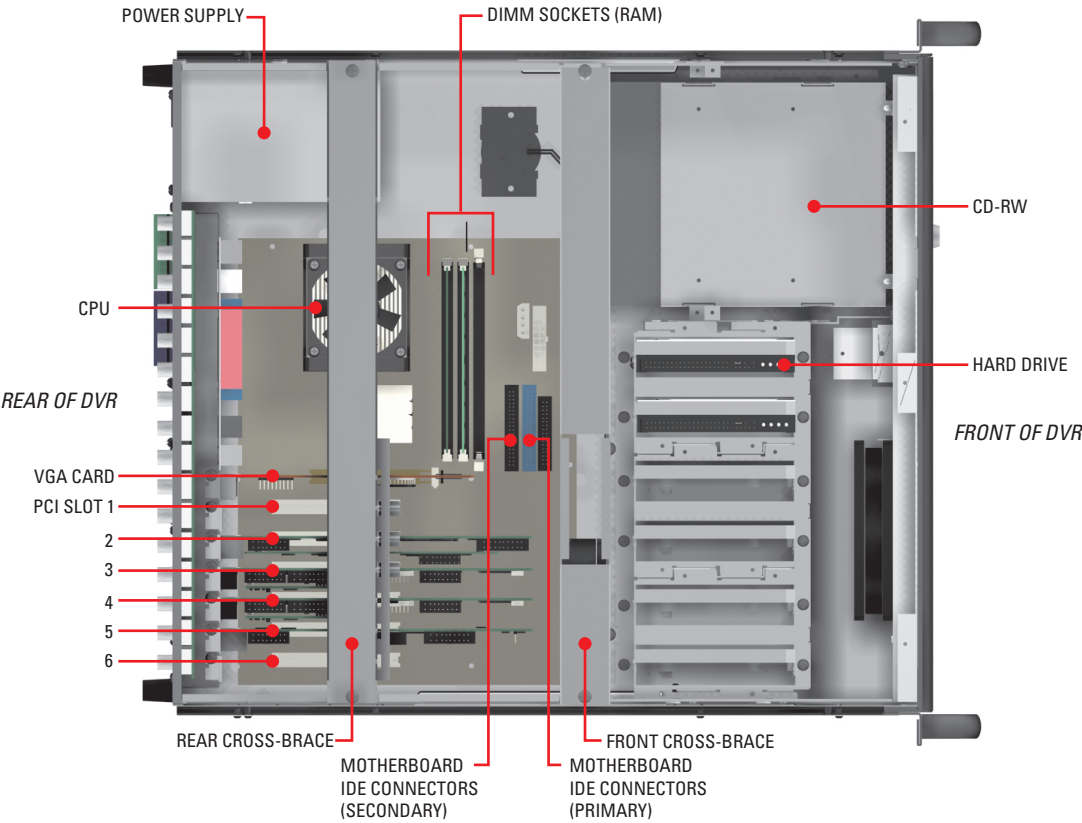
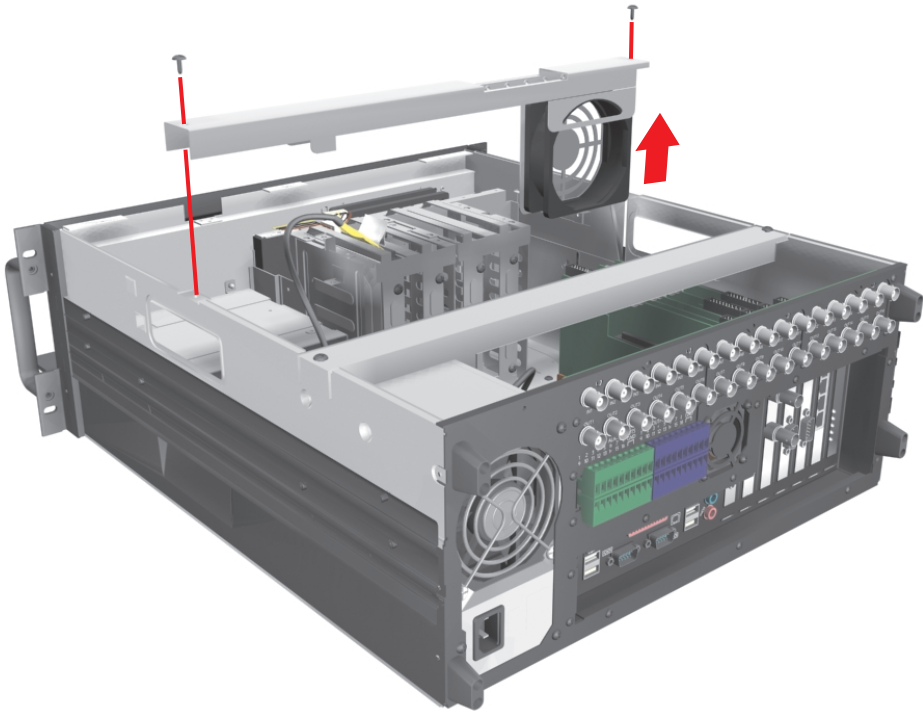


Figure 5. DX8000 Interior

# Move the Front Cross-Brace

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1. Unscrew and lift out the front cross-brace (found at the center of the unit). Moving this part out of the way will make it easier for you to access the hard drive mounting baskets.
  - a. Use a Phillips-head screwdriver to remove the two flat-head screws that secure the front cross-brace. Refer to Figure 6.

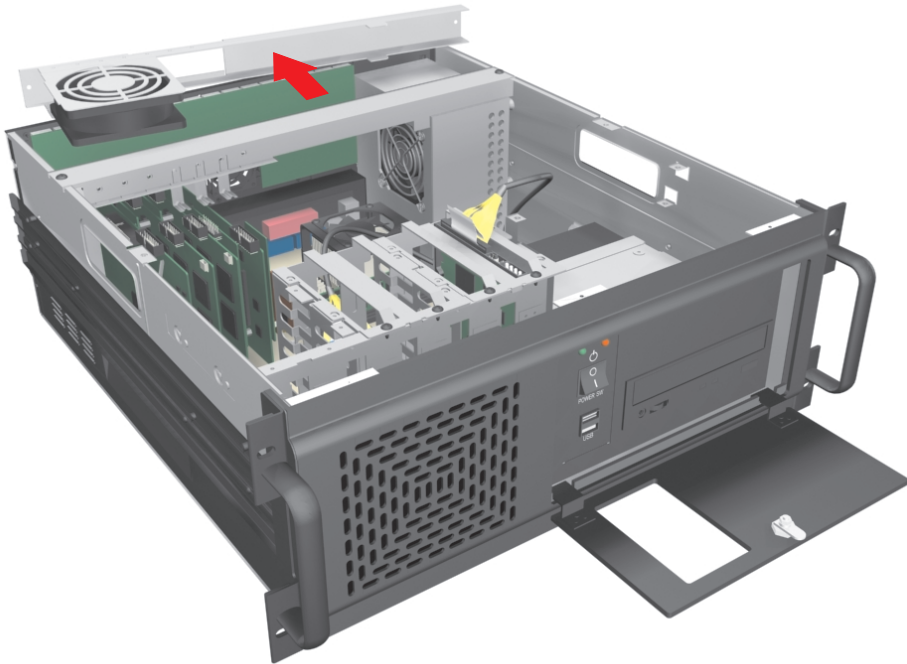


**Figure 6.** Removing Front Cross-Brace

- b. Carefully place the cross-brace and fan across the rear section of the unit. Refer to Figure 7.



**WARNING:** Do not disconnect the wires or remove the front cross-brace entirely from the unit—doing so may cause damage to the fan's power connection.

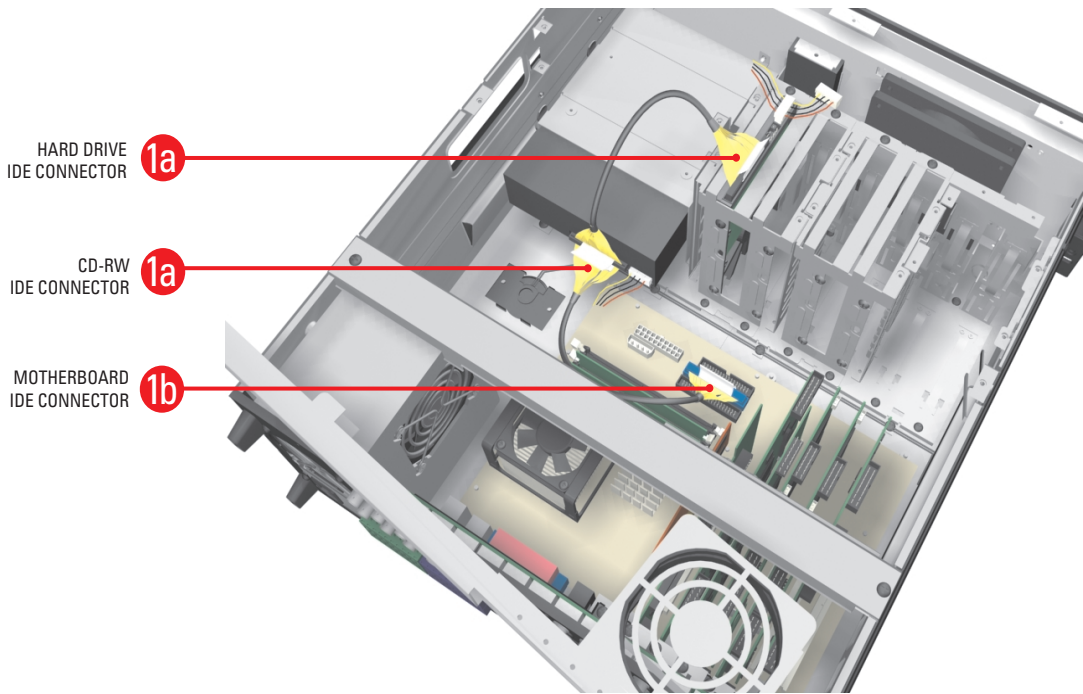


**Figure 7.** Placing Front Cross-Brace Across Rear of Unit

# Disconnect the Data and Power Cables

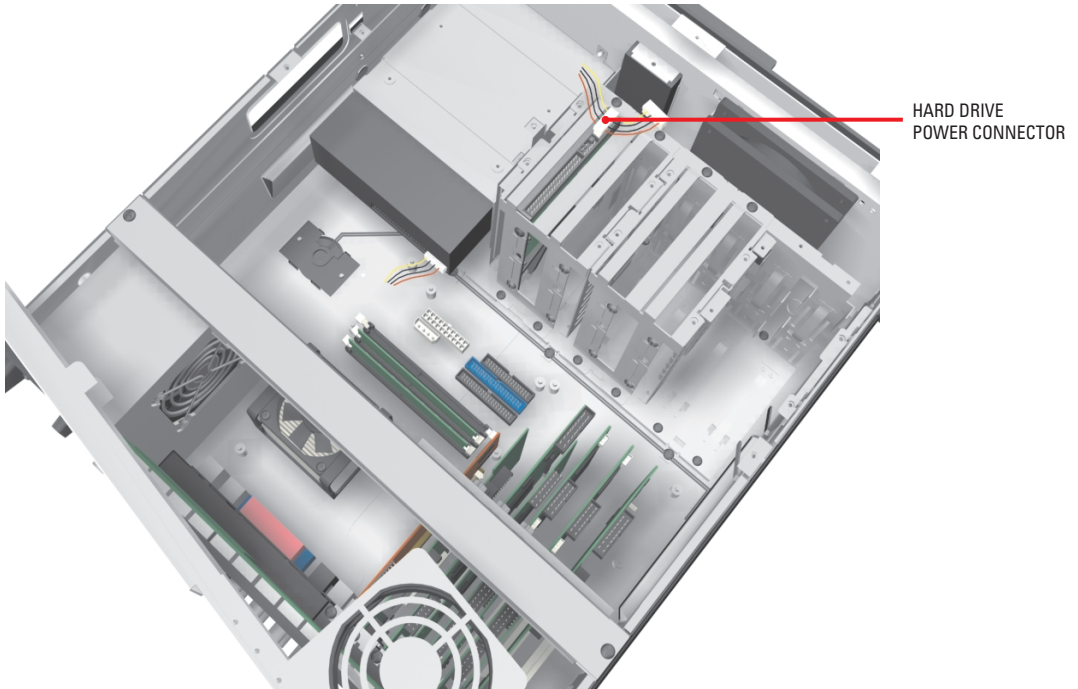
When removing the data and power cables, pull the connectors straight out. Do not rock connectors back and forth or remove a cable by pulling it by its wires or cable.

1. Remove the IDE data cable from the existing hard drive, CD-RW drive, and motherboard:
  - a. Carefully pull the plastic tab of each cable connector away from the hard drive and CD-RW drive. Refer to Figure 8.
  - b. Following the same procedure, remove the other end of the IDE cable from the drive interface connector on the motherboard. Refer to Figure 8.



**Figure 8.** Removing the IDE Data Cable

2. Remove the power connectors from the hard drive.

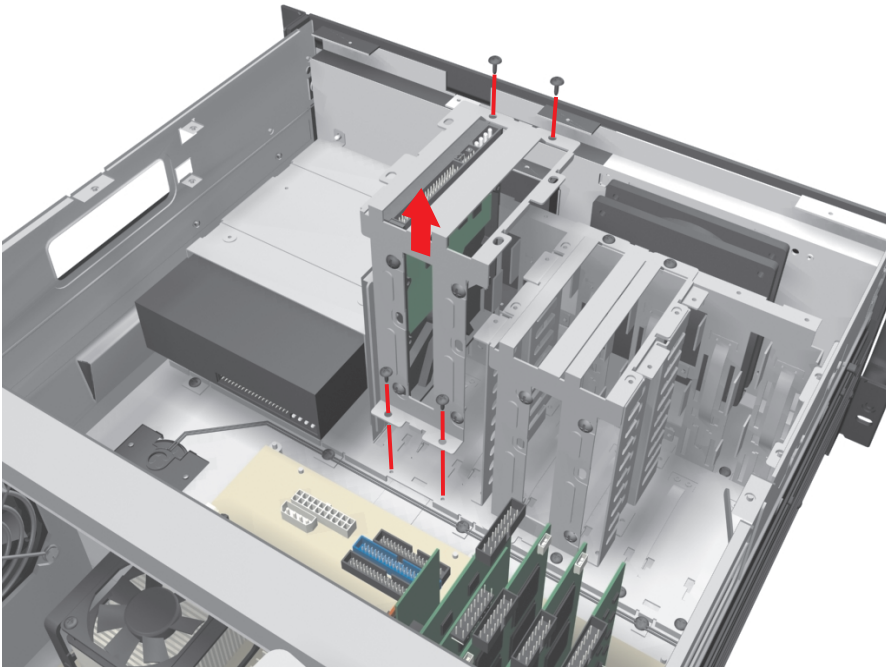


**Figure 9.** Removing Hard Drive Power Connection

# Remove the Drive Mount Basket

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1. Remove the first hard drive mounting basket:
  - a. Using a Phillips-head screwdriver, unfasten and save the four screws that attach the drive basket to the chassis. Refer to Figure 10.
  - b. Gently lift the basket up and out with the drive attached. Be careful not to force the basket free or to disturb other components inside the unit.



**Figure 10.** Removing Hard Drive Basket

# Replace the Primary Hard Disk

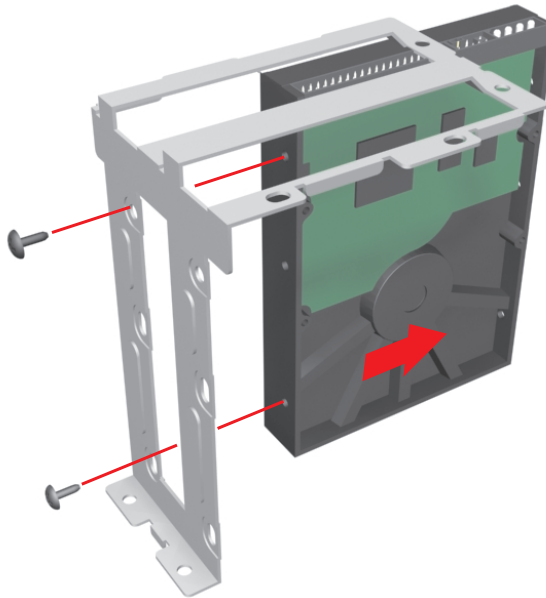
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**NOTE:** This upgrade kit includes a Pelco-certified hard disk drive. Using any other hard disk drive with the DX8000 voids the manufacturer's warranty for this product.

## REMOVE THE ORIGINAL DRIVE

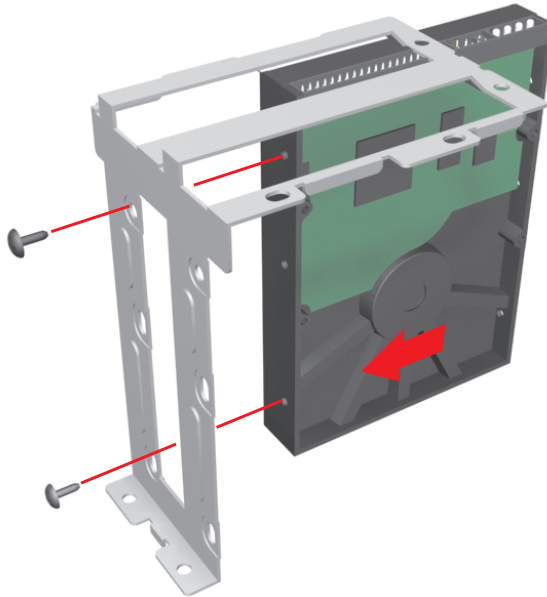
1. Using a Phillips-head screwdriver, unfasten the screws attaching the drive to the basket. Refer to Figure 11.
2. Gently remove the original hard drive from the basket and set aside.



**Figure 11.** Removing the Original Hard Drive

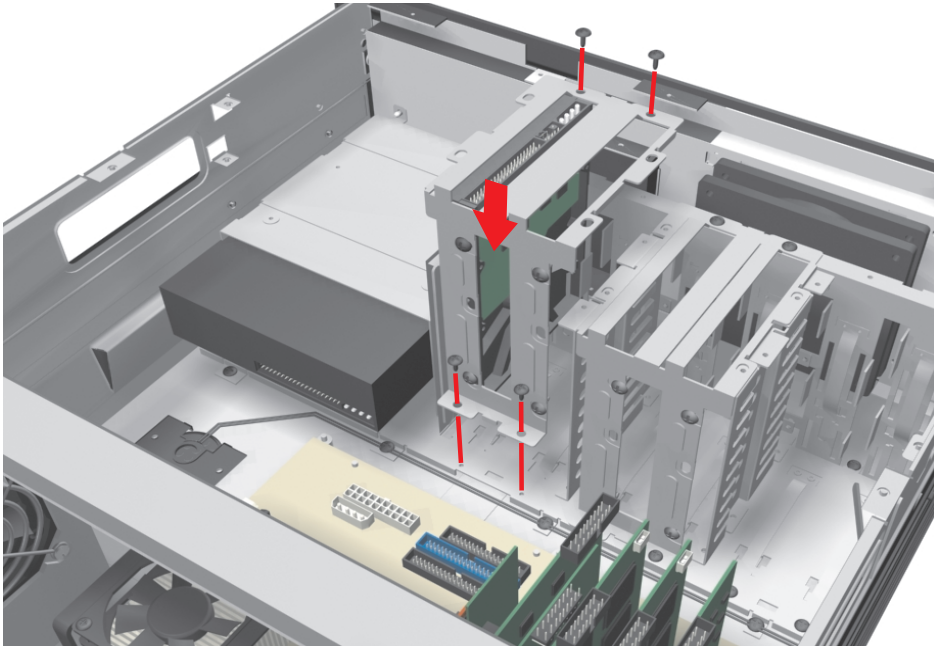
## MOUNT THE NEW DRIVE

1. Mount the new drive in the drive basket. Use the drive slot closest to the CD-RW drive. Refer to Figure 12.
  - a. Make sure the drive is mounted in the basket so that access to the connectors is not blocked.
  - b. Attach the drive to the basket using the two screws that came with the upgrade kit.
  - c. Tighten the screws securely but do not over-tighten.



**Figure 12.** Inserting the New Drive into the Basket

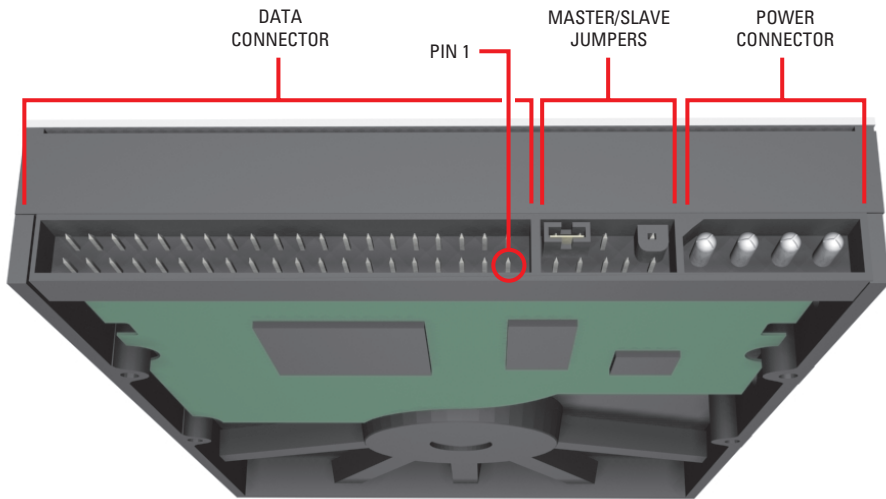
2. Mount the drive basket back into the chassis:
  - a. Align the basket and press down firmly to ensure that it fits flush against the top of the chassis bracket. Refer to Figure 13.
  - b. Secure the drive basket to the chassis using the four screws you set aside earlier.



**Figure 13.** Replacing Drive Basket

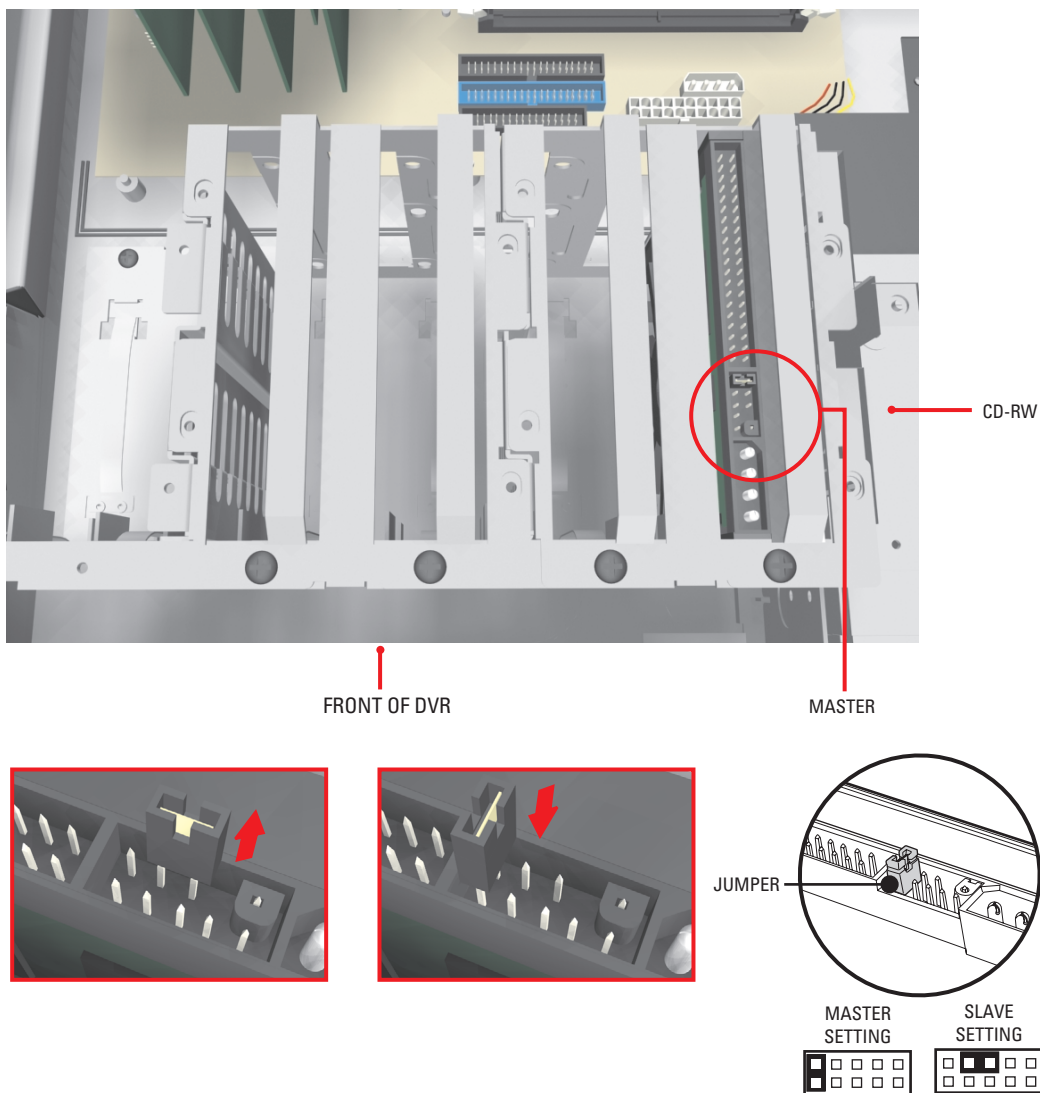
## SET THE MASTER / SLAVE JUMPER

Each hard drive must be configured as either a master or slave device to operate correctly. A jumper is used to configure a pair of connected hard drives to operate in a master/slave relationship. A jumper is a small plastic part that slides over a pair of drive configuration pins. Figure 14 illustrates the rear panel of a 250 GB hard disk drive and the jumper location.



**Figure 14.** Rear View of Hard Disk Drive

1. Set the jumper:
  - a. Using your fingernails or a pair of tweezers, remove the plastic jumper block by pulling it gently away from the drive as shown in Figure 15.
  - b. Set the drive to be the master disk by replacing the jumper block.



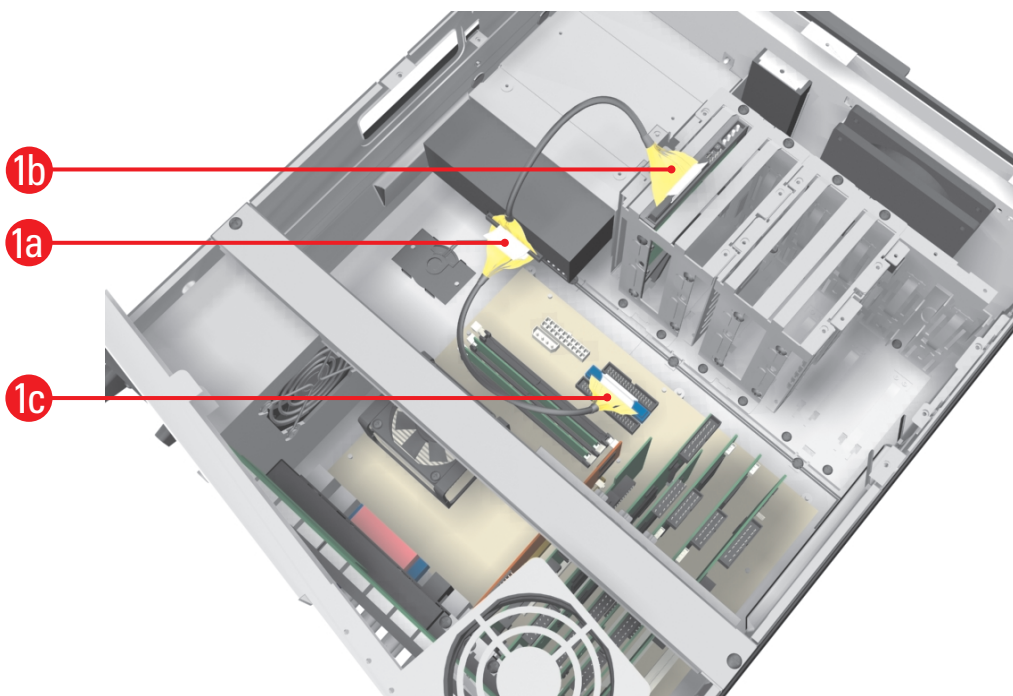
**Figure 15.** Setting Drive Jumper

## RECONNECT THE DATA AND POWER CABLES



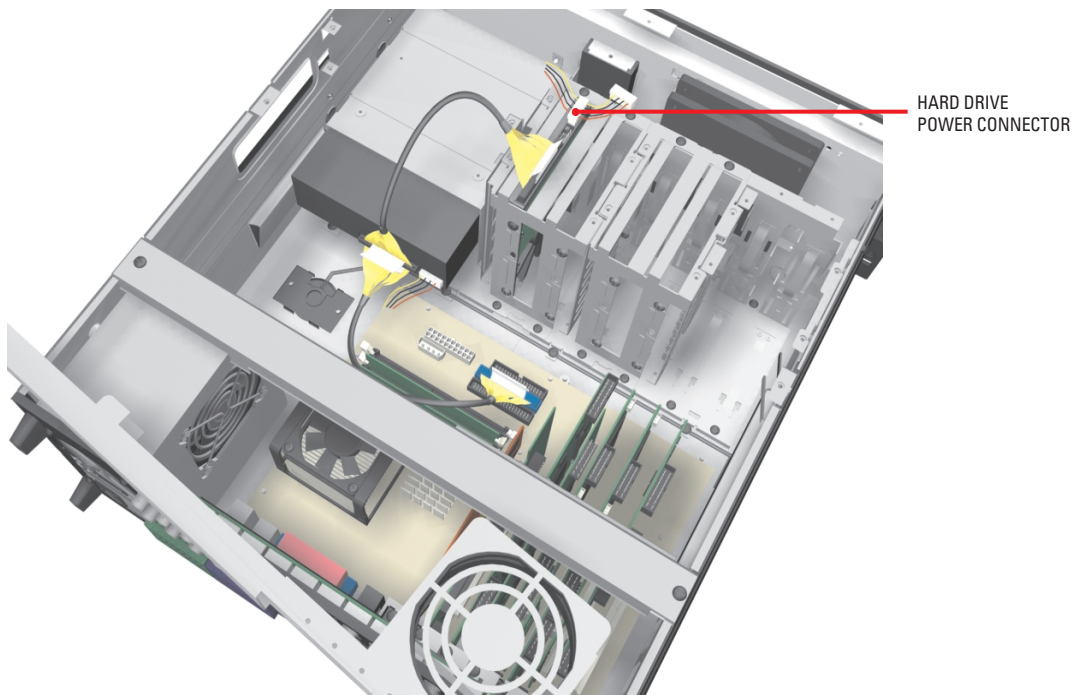
**IMPORTANT:** Data and power cable connectors fit together only one way. All connectors are keyed to ensure that they are inserted in the proper orientation. Examine the drive, motherboard, and cable connectors before installation so that connectors are properly aligned. Make sure connectors are seated in the mating connectors securely, but do not force the connection. When installing drive power cables, push the connectors straight in or out; do not rock connectors back and forth.

1. Connect the CD-RW drive to the system motherboard using the data cable that you removed earlier:
  - a. Connect the *gray* connector of the data cable that came with your DX8000 to the CD-RW drive as illustrated in Figure 16.
  - b. Connect the *black* connector of the data cable to the newly installed hard drive. Refer to Figure 16.
  - c. Connect the *blue* connector of the data cable to the primary (*blue*) IDE connector on the system motherboard. Refer to Figure 16.



**Figure 16.** Installing CD-RW and Hard Drive Data Cable

3. Connect the hard drive power connector according to the diagram in Figure 17.

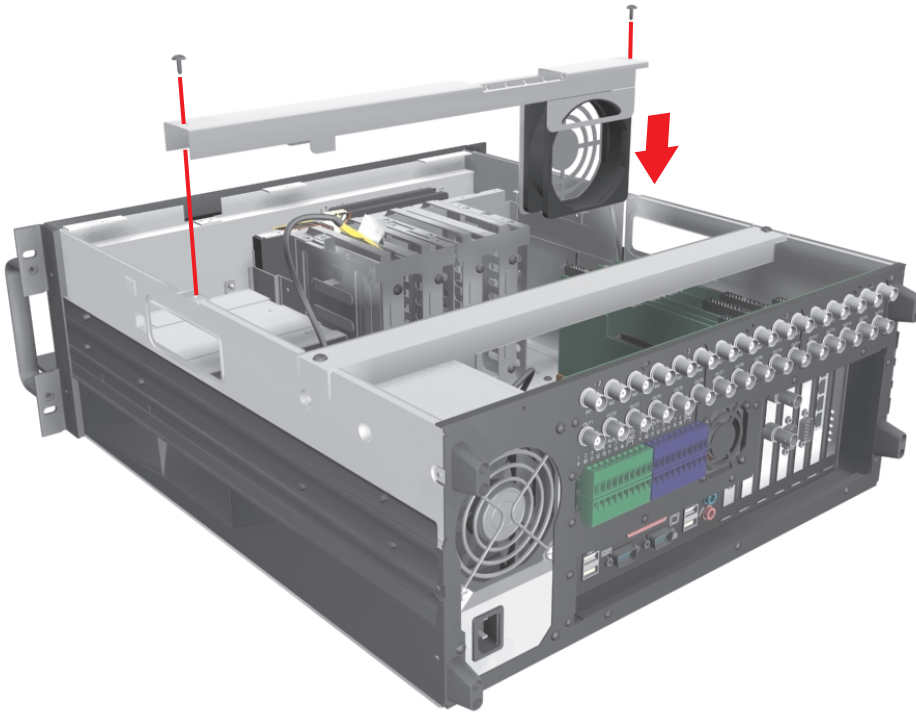


**Figure 17.** Installing Power Connector

# Reassemble the Unit

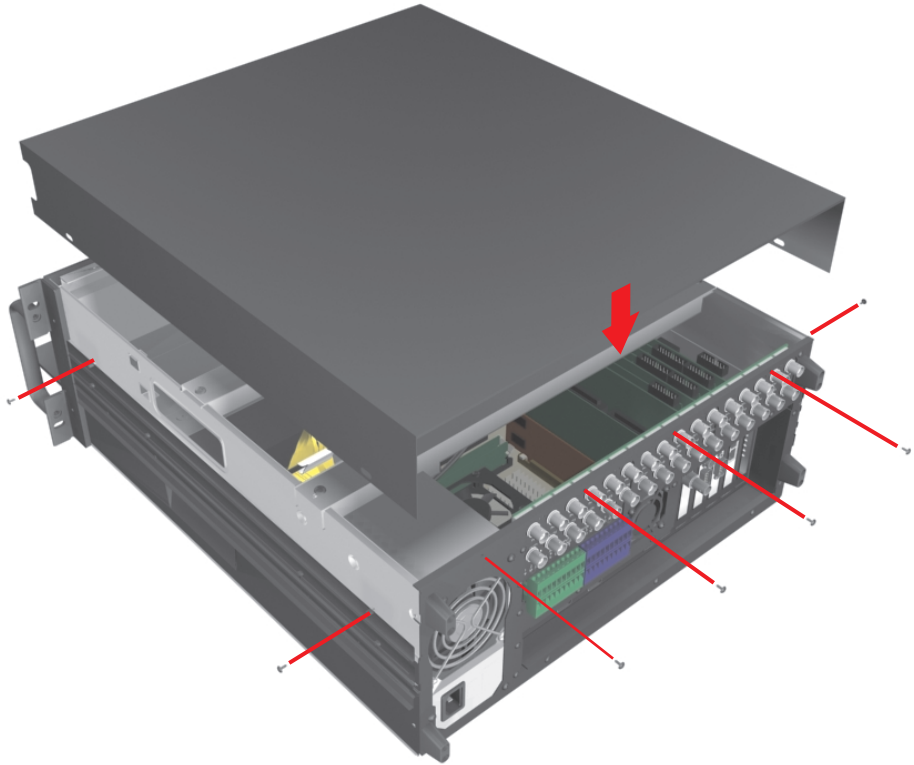
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1. Replace the front cross-brace and secure it with the flat-head screws you set aside earlier. Refer to Figure 18.



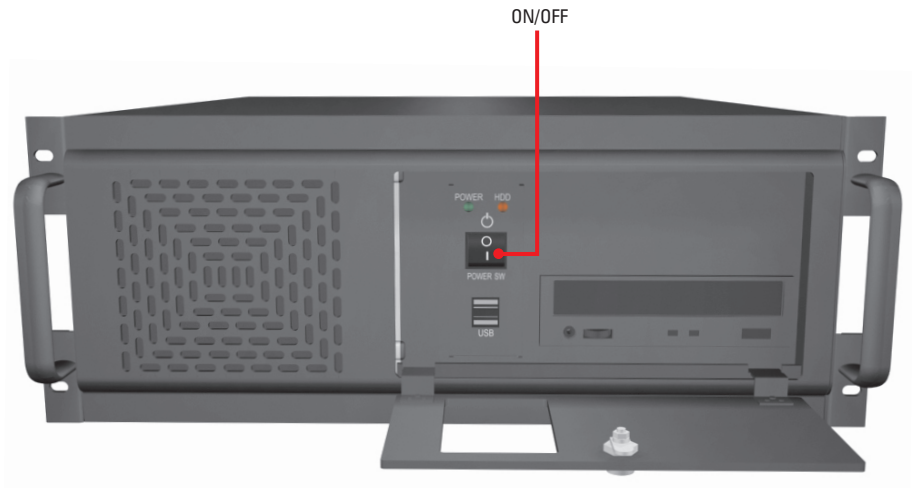
**Figure 18.** Replacing Front Cross-Brace

2. Replace the chassis cover using the same screws you removed from the side and rear of the unit. Refer to Figure 19.



**Figure 19.** Replacing Chassis Cover

3. Reinstall the unit in a rack enclosure if necessary, and reconnect all cables and peripheral equipment that you removed earlier.
4. Plug the power cord back into the power supply and then into the wall.
5. Turn on the power switch and allow the unit to start up and find the new hard disk. This may take several minutes.
6. Proceed to the following sections for instructions on how to initialize the drive for service in the DX8000.



**Figure 20.** Restarting Unit

# Install Software on the New Drive

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To complete the installation of a new primary hard disk in your DX8000, all necessary operating system and application software must be installed. Installation of this software will require that you configure the DX8000 to boot from the CD/DVD drive. Then follow the on-screen directions to prepare the new hard disk drive for service in your DVR.

## CONFIGURE SYSTEM TO BOOT FROM CD/DVD

To change the boot drive from the hard disk to the CD/DVD drive:

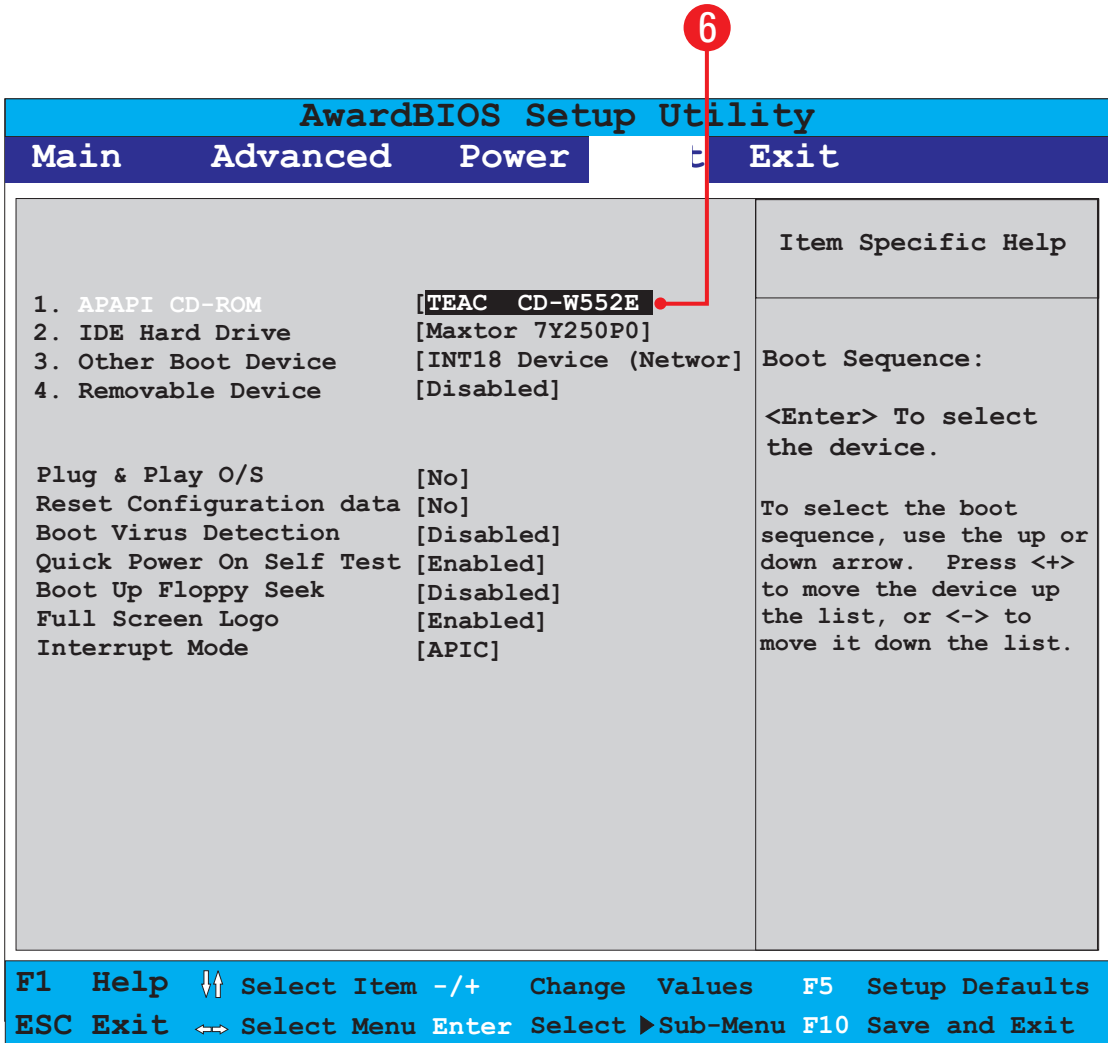
1. Insert the DX8000 Reinstallation CD into your DVR's CD/DVD drive.
2. Boot the DX8000 Series DVR by turning on the power switch, or restart the system if it is already running. Refer to the Operations and Programming Manual for instructions on restarting the DX8000.

3. Press the Delete key on the keyboard as the system is booting and before the Windows® operating system loads. The BIOS main screen appears.

AwardBIOS Setup Utility		
Main	Advanced	Power Boot Exit
<div>System Time [19:48:32] System Date [02/04/2004] Legacy Diskette A [1.44M, 2.5 in.] Floppy 3 Mode Support [Disabled]  ►Primary Master [Maxtor 7Y250P0] ►Primary Slave [TEAC CD-W552E] ►Secondary Master [AUTO] ►Secondary Slave [AUTO] ►Keyboard Features  Language [English (US)] Supervisor Password [Disabled] User Password [Disabled] Halt On [All but keyboard] Installed Memory 256MB</div>		<div>Item Specific Help  Supervisor password controls full access.  &lt;Enter&gt; to change password. &lt;Enter&gt; again to disable password.</div>
F1 Help ⬆⬆ Select Item -/+ Change Values F5 Setup Defaults ESC Exit ⬅➡ Select Menu Enter Select ►Sub-Menu F10 Save and Exit		

Figure 21. DX8000 BIOS Setup Main Screen

4. If you receive a prompt requesting that you enter a password, contact your system administrator for assistance logging into and changing the DX8000 BIOS Setup.
5. Use the cursor control (arrow) keys on your keyboard and move right to the Boot option in the Main screen.
6. Press the minus (-) key on your keyboard to change the boot sequence from the hard disk to the CD or DVD drive installed on your system. The screen should look something like the example in Figure 22.

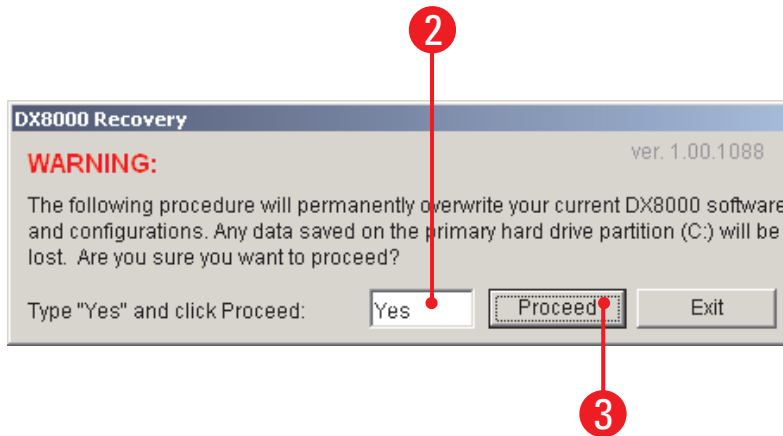


**Figure 22.** BIOS Boot Screen with CD/DVD Drive at Top

7. Press the F10 function key on your keyboard to save and exit the BIOS setup screen.
8. Finalize BIOS changes:
  - To accept the boot sequence changes and reboot, press the Enter key.
  - To cancel the changes, press the Esc key and then press Ctrl+Alt+Delete keys simultaneously to reboot.
9. Wait while your system boots from the DX8000 Reinstallation CD and then proceed to the following section.

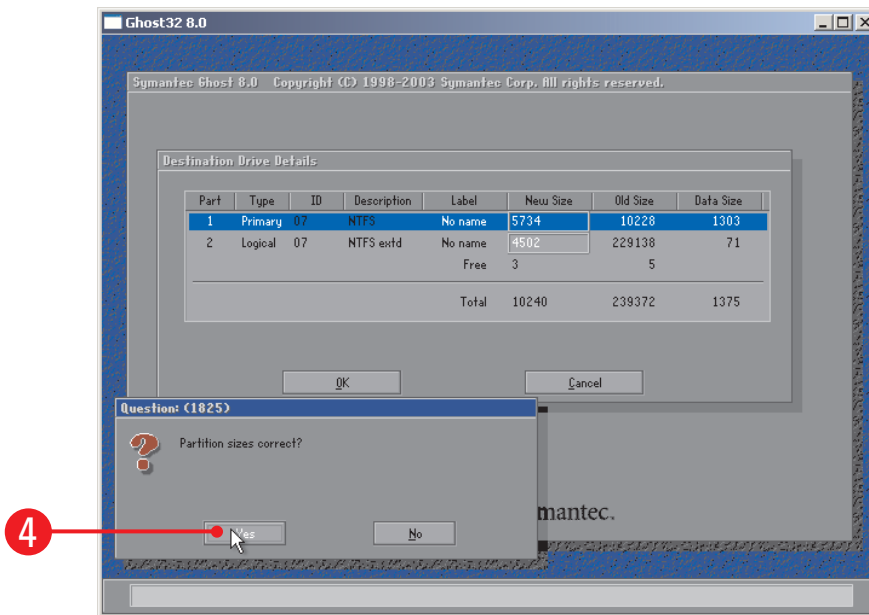
## INSTALL SOFTWARE

1. The DX8000 Recovery dialog box appears.



**Figure 23.** DX8000 Recovery Dialog Box

2. Carefully read the warning presented in the dialog box and type the word **Yes** to confirm that you want to continue the reinstallation process.
3. Click the Proceed button to continue the installation procedure. The Partition Size Verification dialog box appears.

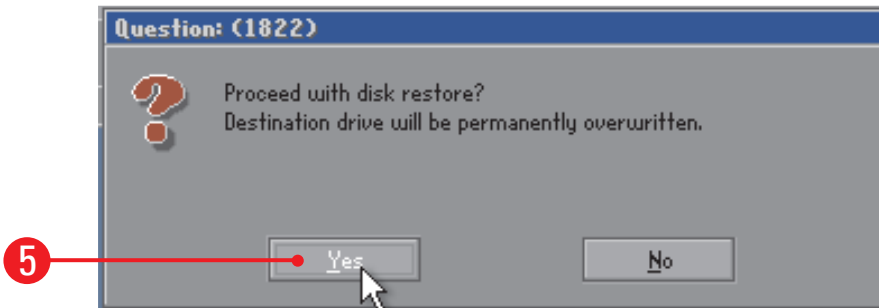


**Figure 24.** Partition Size Verification Dialog Box

- Click Yes. The Proceed with Disk Restore dialog box appears.



**CAUTION:** Proceeding with the recovery procedure will permanently overwrite the software and data stored on your system's C: drive.

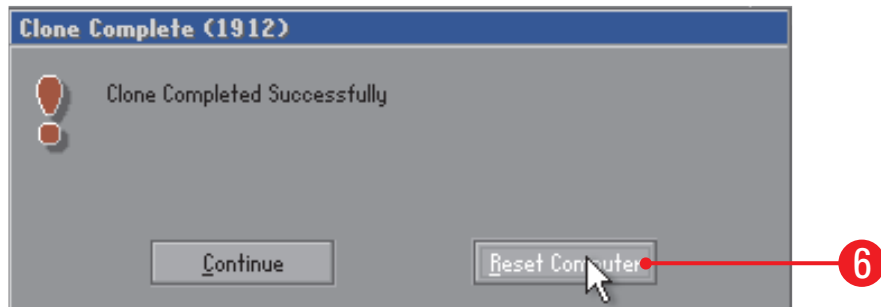


**Figure 25.** Proceed with Disk Restore Dialog Box

5. Click Yes. A progress bar appears reporting the progress of the system installation. When the recovery process is complete, you will be prompted to restart your computer.



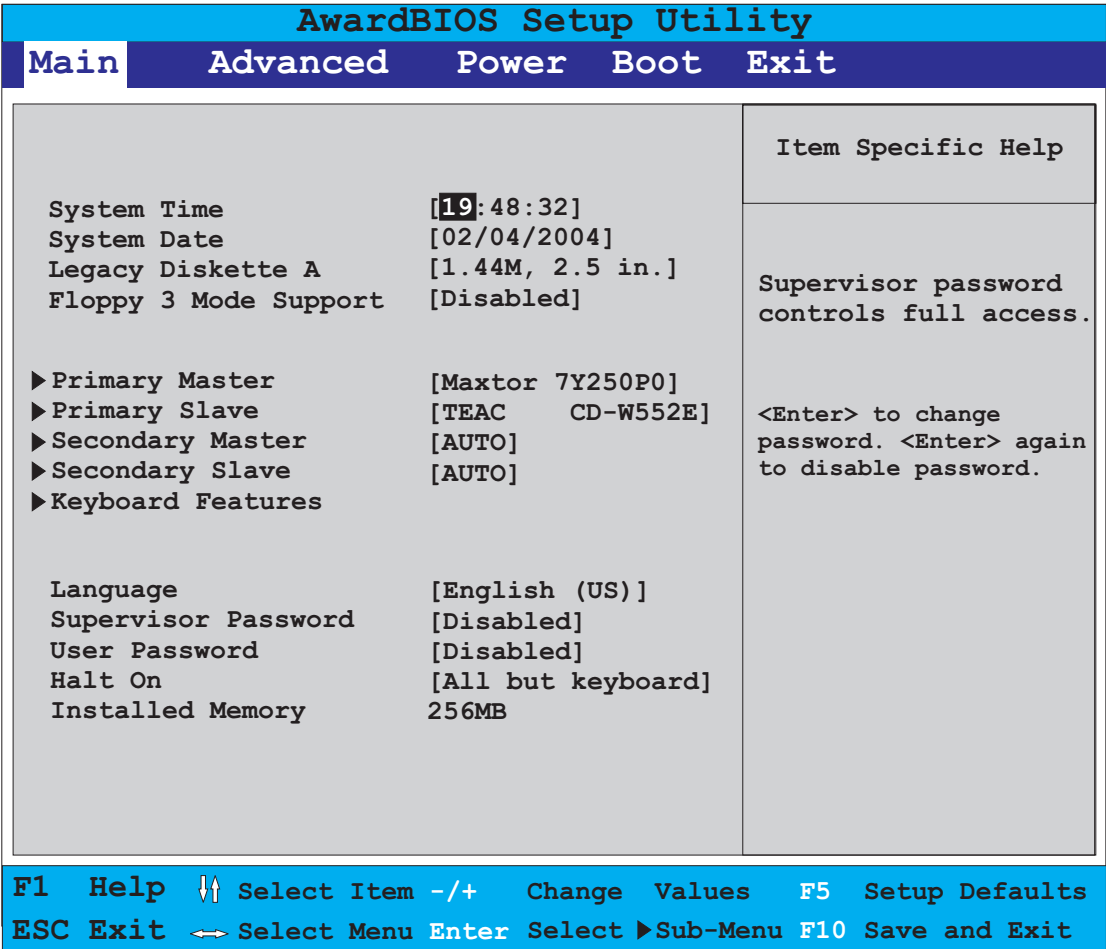
**CAUTION:** At this time, the DX8000 Reinstallation procedure will replace the contents of your primary C: drive partition with a hard disk image of the DX8000 system and application software. The imaging process may take up to 20 minutes. Do not press any keys or restart your DVR during the installation procedure.



**Figure 26.** Clone Complete Dialog Box

6. Click Reset Computer. The DVR restarts.

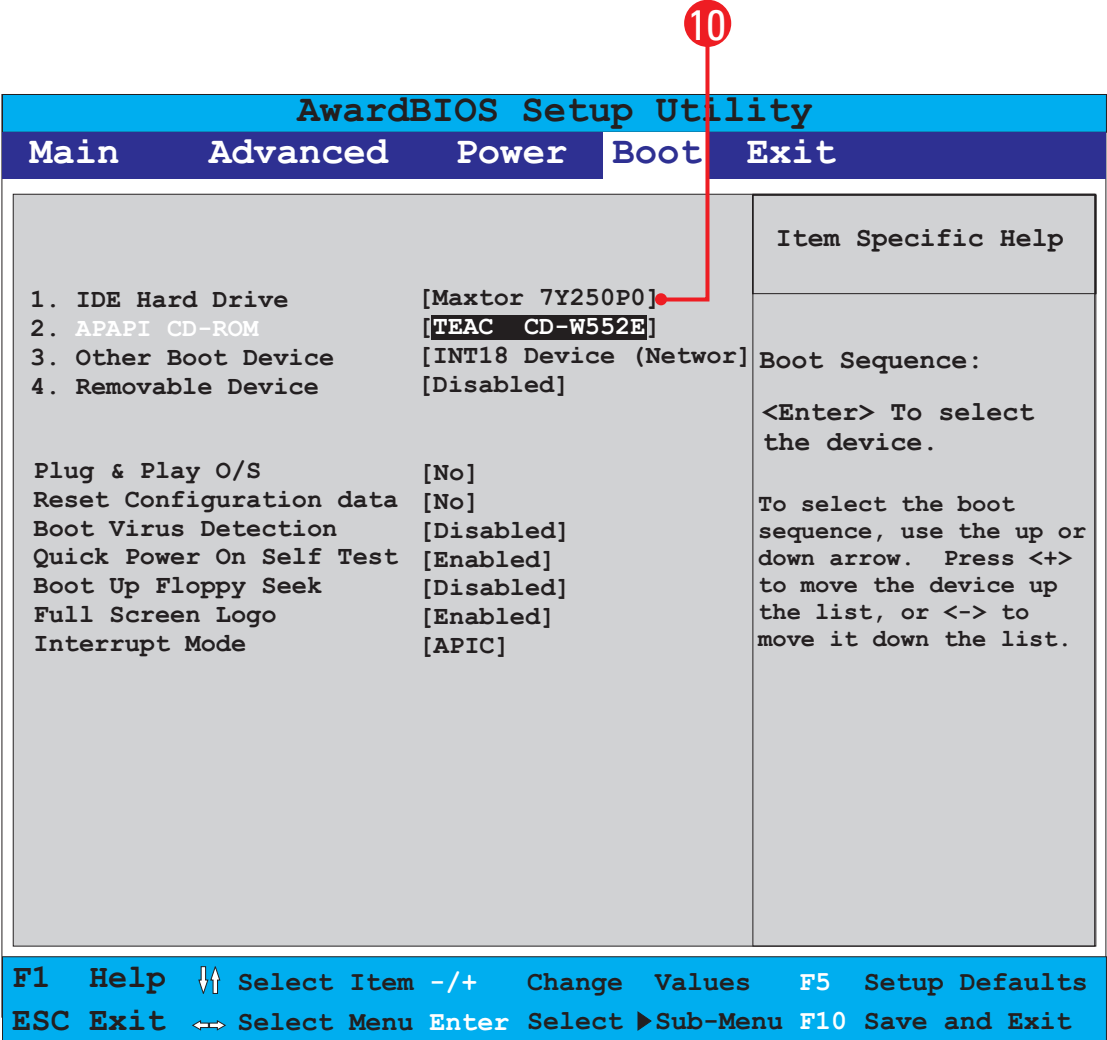
7. Press the Delete key on the keyboard as the system is booting and before the Windows operating system loads. The BIOS main screen appears.



**Figure 27.** DX8000 BIOS Setup Main Screen

8. If you receive a prompt requesting that you enter a password, contact your system administrator for assistance logging into and changing the DX8000 BIOS Setup.
9. Use the cursor control (arrow) keys on your keyboard and move right to the Boot option in the Main screen.

10. Press the minus (-) key on your keyboard to change the boot sequence from the CD/DVD drive back to the hard disk. The screen should look something like the example in Figure 28.

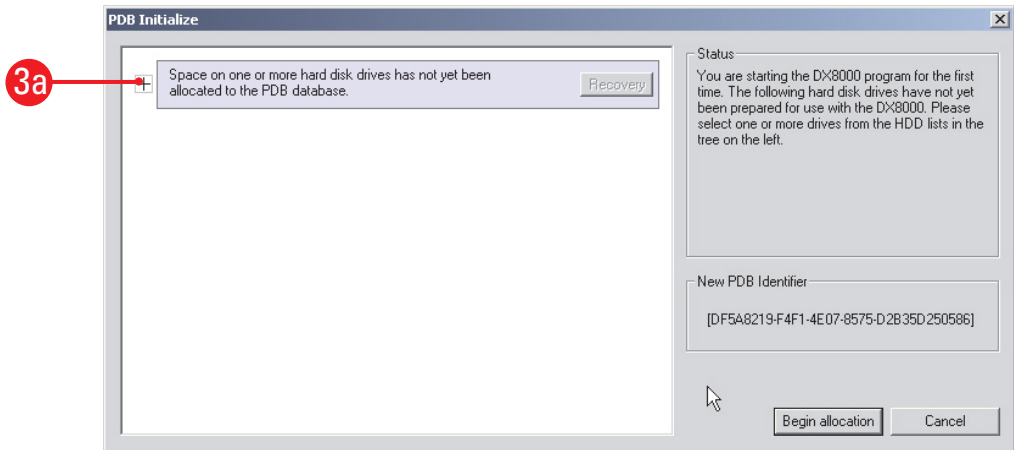


**Figure 28.** BIOS Boot Screen with Hard Disk Drive at Top

11. Press the F10 function key on your keyboard to save and exit the BIOS setup screen.
12. Press the Enter key to accept the change and reboot your DVR.

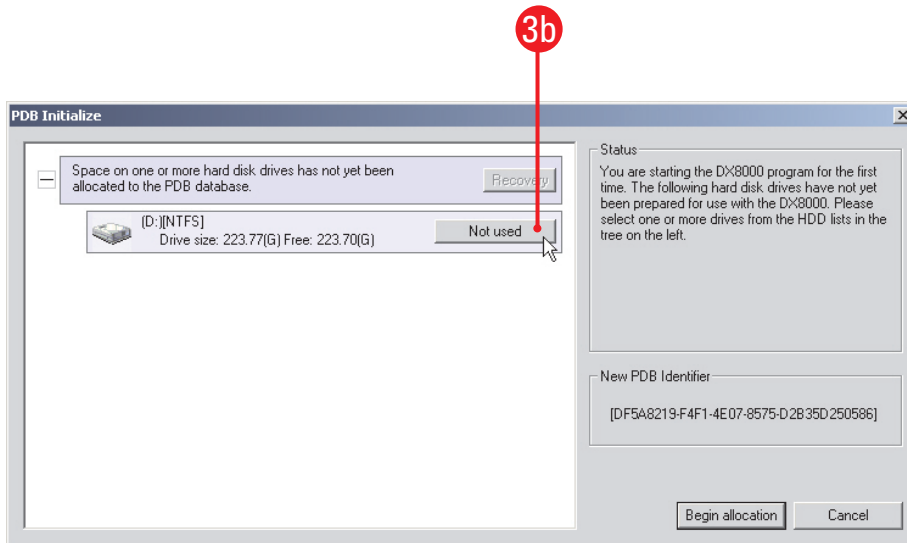
# Initialize the New Drive

1. While the DX8000 starts, the built-in setup program will automatically detect the newly installed drive and reconfigure the basic settings of the unit to make use of the increased storage capacity. No action by the user is necessary during this step.
2. After the unit has detected and prepared the newly added drive, the Windows® operating system will automatically reboot to complete the drive preparation process. No action by the user is necessary during this step.
3. After the system has been rebooted, the PDB Initialize screen appears. Before the new drive can be used to store video data, it must be made compatible with the DX8000's Pelco proprietary database (PDB) file structure. Follow the steps below after the PDB Initialize screen appears to finalize storage setup:
  - a. Click the plus (+) sign next to the blue box—the one that reads, "Space on one or more hard disk drives has not yet been allocated to the PDB database." Refer to Figure 29.



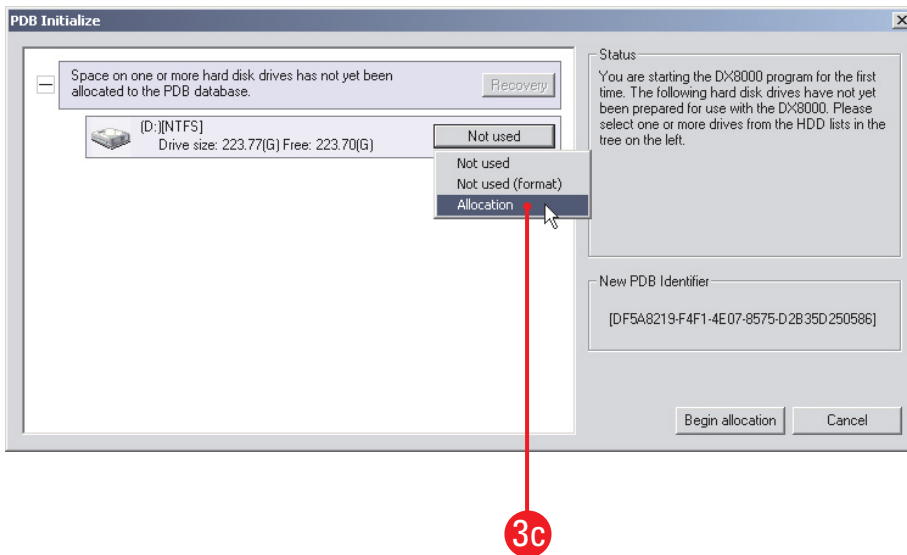
**Figure 29.** Opening List of Drives

- b. Click the Not Used button. Refer to Figure 30. A drop-down menu appears.



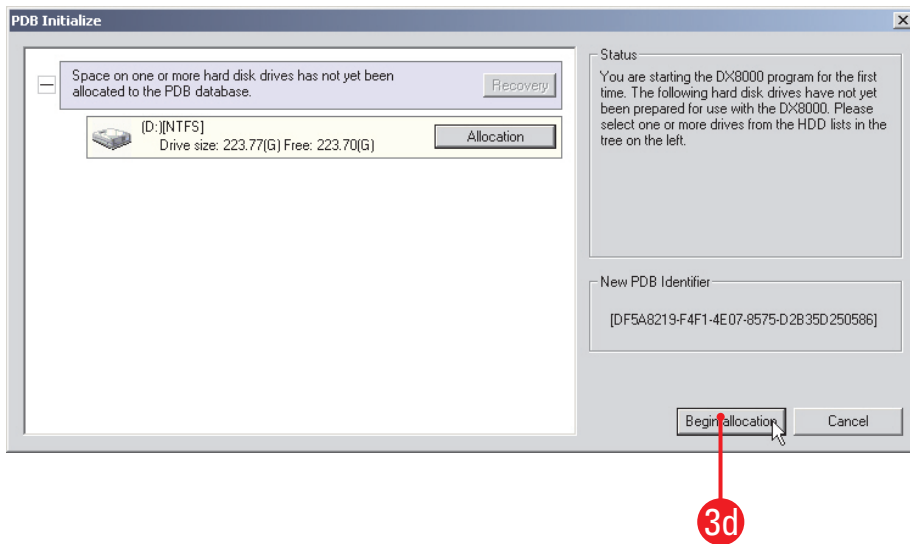
**Figure 30.** Opening Drive Option Menu

- c. Select the Allocation option from the drop-down menu.



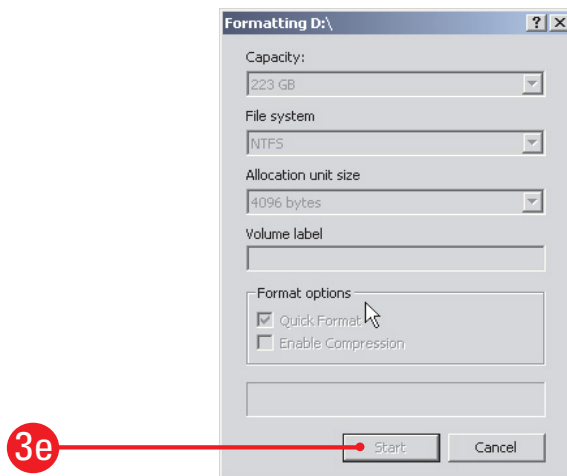
**Figure 31.** Selecting Allocation Option

- d. Click Begin Allocation.



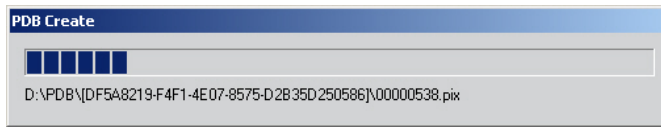
**Figure 32.** Initializing Drive Allocation

- e. The Formatting dialog box appears. Click Start.



**Figure 33.** Formatting Dialog Box

- f. Wait while the DX8000 prepares the newly installed drive for video storage. You will see the following progress bar while the formatting is underway.



**Figure 34.** PDB Database Creation Progress Bar

4. After the storage allocation procedure is complete, the DX8000 will reboot automatically and the unit will be ready to resume service.

# PRODUCT WARRANTY AND RETURN INFORMATION

## WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on the following fixed camera models: CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X.
- Three years on all other fixed camera models (including Camclosure® Integrated Camera Systems) and Genex® Series (multiplexers, server, and keyboard).
- Two years on all standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM8500/CM9500/CM9700 Series Matrix, DF5 and DF8 Series Fixed Dome products.
- Two years on Spectra®, Esprit®, and PS20 Scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders and NVR300 network video recorders.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

## RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

*If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:*

Service Department  
Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699

*If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:*

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors  
473 Eccles Avenue  
South San Francisco, CA 94080 USA  
Phone: 650-737-1700  
Fax: 650-737-0933

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